Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of	)	
	)	
Application of Ameritech	)	
Michigan Pursuant to Section	)	
271 of the Telecommunications	)	CC Docket No. 97-137
Act of 1996 to Provide In-	)	
Region, InterLATA Services in	)	
Michigan	)	

Exhibit E:
Affidavit of August H. Ankum
on Behalf of MCI Telecommunications Corporation

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AFFIDAVIT OF DR. AUGUST H. ANKUM ON BEHALF OF MCI TELECOMMUNICATIONS CORPORATION

I, August H. Ankum, being first duly sworn upon oath, do hereby depose and state as follows:

Qualifications

1. My name is Dr. August H. Ankum. I am an economist and consultant, specializing in telecommunications. My business address is 1350 North Wells, Suite C501, Chicago, IL 60610.

2. I received a Ph.D. in Economics from the University of Texas at Austin in 1992, an M.A. in Economics from the University of Texas at Austin in 1987, and a B.A. in Economics from Quincy College, Illinois, in 1982.

3. My professional background includes work and consulting experiences in private industry, state regulatory agencies, and academia. As a consultant, I have worked with a variety of companies such as AT&T, AT&T Wireless, MCI, Brooks Fiber and various PCS providers, and with the Office of Public Utility Counsel of Texas, which represents residential and small commercial customers, in proceedings before the FCC and the Public Utility Commission of Texas. Before I

began my practice as a consultant, I was employed by MCI Telecommunications Corporation ("MCI") as a senior economist. Prior to joining MCI in early 1995, I worked for Teleport Communications Group, Inc. ("TCG"), as a Manager in the Regulatory and External Affairs Division. From 1986 until early 1994, I was employed as an economist, eventually chief economist, by the Public Utility Commission of Texas ("PUCT") where I worked on a variety of electric power and telecommunications issues. Prior to joining the PUCT, I taught undergraduate courses in economics as an Assistant Instructor at the University of Texas from 1984 to 1986.

Purpose

4. The purpose of my affidavit is to demonstrate that the costs Ameritech has reported are systematically *higher* than properly calculated TELRIC costs. Ameritech's cost studies are inconsistent with the FCC's TELRIC methodology [1] and with proper principles for economic costing. Attached to this affidavit is a list that compares Ameritech's proposed rates with rates proposed by MCI and AT&T in the TELRIC proceeding, Case No. 11280, before the Michigan Public Service Commission ("MPSC"). In this proceeding, MCI and AT&T reconstructed a large number of Ameritech's cost models and used those corrected models to adjust for the deficiencies in Ameritech's models. The deficiencies in Ameritech's studies are discussed below. As this comparison indicates, Ameritech's proposed recurring charges, on average, overstate the true TELRICs plus shared and common costs for unbundled network elements and interconnection services by approximately 25 to 35 percent. This comparison also indicates that Ameritech's inflated

[1] See the FCC's *First Report and Order in CC Docket Nos. 96-98 and 95-185, In the Matter of Implementation of the Local Competition Provisions in the Telecommunications Act of 1996*, August 8, 1996.

non-recurring charges are even more egregious.

5. This affidavit will therefore demonstrate that Ameritech's rates are not just and reasonable as required under the Act but instead place fledgling and potential competitors for local telephone subscribers at a significant disadvantage. Ameritech's inflated prices exploit and secure its bottleneck monopoly by severely impeding the development of effective competition in the market for local telephone services. Further, this affidavit will demonstrate that Ameritech's distortions of proper economic costing are not the product of arguable but different approaches but necessarily result from a deliberate attempt to hobble potential competition at the local level.

SUMMARY OF FINDINGS

6. *Unbundled Local Switching*. Ameritech proposes a $33,669.71 charge for ULS Usage (billing development) *per carrier per switch*. This proposed non-recurring charge ("NRC") is commercially prohibitive as it would increase the effective cost of providing local service by purchasing unbundled switching astronomically. Ameritech developed this charge by assuming the implausible proposition that on *average* each competitor would order ULS from *fewer than one* switch per state, an absurdly low assumption.

7. This charge is nominally to allay the cost of updating the switch's software for tracking usage to provide particular data for billing. This cost is incurred once. If Ameritech's claimed cost of developing this software is properly spread among all entrants and all switches, the price would be approximately $100-150 per switch per entrant -- not $33,669.71.

8. *Physical Collocation*. Ameritech used a square foot cost figure for a fully built-out telephone exchange central office from the R.S. Means Guide that includes the cost of rented space

and all additional space necessary to support it, then doubled it to arrive at its proposed monthly charges. Ameritech's charges thus unjustifiably build in a double recovery.

9. Ameritech also improperly impose an additional charge of $29,401 for construction, even though these costs are already included in the R.S. Means Guide cost figure.

10. Ameritech also improperly used the R.S. Means figure for high cost areas, even though Michigan is a *medium* cost state. This results in an additional overcharge of approximately 20 percent.

11. Ameritech's proposed space reservation service and ordering charges are also greatly inflated. Ameritech's planning, engineering, and related expenses are already covered by the R.S. Means square-foot cost. There is no legitimate basis to also charge for those expenses as part of the service ordering process. Ameritech's $1,000 charge bears no resemblance to the remaining cost: taking the order. Nor is its $4,130 cancellation charge plausibly related to any administrative effort entailed by cancellation.

12. A small but telling detail is Ameritech's inclusion of an "asbestos assessment" of **[Subject to Ameritech Protective Order]** in the cancellation fee. This is imposed *only* when a collocation cage is canceled. Unless Ameritech is planning to install asbestos in areas to be used by new entrants, which then has to be removed when they leave, this is pure -- and deliberate -- fabrication in order to inflate the costs of its competitors. In any event, the installation of asbestos in the late 1990s is not consistent with forward-looking construction practices.

13. *Service ordering charges for Loops and Ports.* Ameritech's service ordering costs are greatly overstated because they reflect many manual processes when automated processes are

available and appropriate in a wholesale environment. Although Ameritech uses an EDI-type automated interface for ordering telephone service for resale, it bases its costs for ordering unbundled elements on a more manual system.

14. The upper limit for service order charges should be $1.00 per unbundled loop and per unbundled port. The interim price is 38 times that, and the charges proposed by Ameritech are still higher.

15. *Line Connection Charges.* Ameritech greatly overstates labor related expenses in its line-connection study. The most efficient system available -- electronic interface with the CLECs -- would substantially lower costs.

16. *Unbundled loops.* Ameritech's loop studies use fill factors that are inconsistent with Ameritech's own cost manuals. As a result of these inconsistencies *alone*, I estimate that Ameritech's unbundled loop costs are over-stated by at least 15 percent.

17. Ameritech's loop cost model, Ameritech Feeder Analysis Model ("AFAM"), does not even perform an efficiency analysis and is incapable of optimizing the length of the feeder or the length of the distribution portion of the loop. I estimate that, as a result, the per-unit investment figures are overstated by no less than 5 percent, in addition to the 15 percent discussed above.

18. *Unbundled Switching Prices.* Ameritech inappropriately proposes to charge for switching on a per minute instead of a flat-rate basis, even though most if not all of the costs of a switch are not usage sensitive. For example, Ameritech's vendor contracts indicate that Ameritech pays for switches based on the number of lines that can be served, not based on usage levels. A flat rate structure thus better reflects the manner in which costs are incurred and helps avoid placing

Ameritech in the position where it could effectively charge retail customers less for usage than it charges competitors. However, even if unbundled switching were priced on a usage sensitive basis, Ameritech's proposed charges for per minute unbundled switching usage are also deliberately inflated. Like its loop studies, Ameritech's unbundled switching cost studies assume capacity utilization that is inconsistent with Ameritech's own cost manuals.

19. Ameritech also inappropriately proposes to take for itself the access charge revenues for traffic that either terminates or originates on unbundled switches, as if Ameritech and not its competitors provided that access. By doing so, Ameritech impedes competition in the local market by reaping revenues that rightly belong to its competitors and which those competitors need to recover Ameritech's non-recurring charges.

20. Ameritech's refusal to offer (and charge for) common transport, instead insisting on charging higher prices for shared or dedicated transport, is anti-competitive and artificially increases the costs of its potential competitors by precluding them from sharing the economies of scale available in the existing local network. Both shared and dedicated transport require pre-determined routes for point-to-point communication. In contrast, common transport takes advantage of the extensive network already in place and allows call-by-call routing decisions on a least cost basis.

21. *Depreciation.* Ameritech relies on inappropriate depreciation rates. The pace of technological developments is driven mostly by *global* technology markets, not *local* competition in Michigan.

22. *Return on Equity Issues.* Ameritech's proposed return on equity is based on

vertically integrated firm with its "portfolio of services that have different risk characteristics,"[2] rather than the *relevant* measure: the sale of network elements on a wholesale basis.

23. *Shared and Common Costs.* The proportion of shared and common costs Ameritech imposes on CLECs are almost three times higher than they should be. In Ameritech's studies, CLECs will purchase less than 1% of the unbundled loops -- yet the unbundled network elements to be purchased by CLECs are burdened with more than 2% of Ameritech's corporate overhead expenses. This is discriminatory, anti-competitive and inconsistent with the TELRIC methodology.

24. Ameritech allocates substantially larger mark-ups for shared and common costs to loops in downtown areas than business loops in more rural areas. These allocations seem designed to frustrate competitive entry.

25. Ameritech's cost study calculates the shared and common costs as if its unbundling division was a *start-up* company, thus preventing new entrants from sharing in Ameritech's economies of scale. For example, the per element allocation of shared and common costs swings wildly with changes in demand forecasts. This is contrary to the fact that large firms like Ameritech have relatively constant economies of scale. That is, per element allocations should not vary much, if at all, with output changes. This also demonstrates the fundamentally arbitrary nature of Ameritech's study.

26. Furthermore, Ameritech's shared and common cost study is not forward-looking in

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[2] This description of Ameritech's operations was provided by Ameritech witness, Dr. Currie, Ameritech Ohio Ex. 1.0 (Dr. Currie), page 18, lines 1,2, Ohio Case No. 96-922-TP-UNC. Dr. Currie is one of Ameritech's main economic witnesses, sponsoring most of the cost studies that Mr. Florence is sponsoring in the current proceeding.

an economic sense. Ameritech uses 1997 budgets which compound embedded inefficiencies instead of eliminating them. I estimate that the shared and common costs are overestimated, on this account alone, by at least 20%.

27. In addition, Ameritech has not adequately eliminated retail-related expenses.

28. Lastly, the shared and common cost studies are riddled with mis-allocations. Among these are allocations for the costs of the attorneys and economists representing Ameritech in Section 252 and 271 and related proceedings. Ameritech not only imposed these costs solely on new entrants, but then assumed that these costs in all future years would be as high as they were in the first year after the statute was enacted, and imposed *those phantom costs* solely on new entrants. *These allocations are not consistent with TELRIC or with the Act.*

29. A more appropriate percentage mark-up for shared and common costs would be approximately 50% less than Ameritech's proposed mark-ups.

30. *Ameritech's Proposal to Include a "Residual" in prices for unbundled elements.* If the pricing provisions in the FCC's First Report and Order are found inapplicable to state commission decisions, Ameritech proposes to include a "residual" in these rates for unbundled network elements and interconnection. This "residual" is an arbitrary mark-up above cost, which would be imposed as a barrier to competition and which would therefore undermine the ability of competition to drive prices to consumers down to true economic costs.

31. *Ameritech's unbundled element offerings do not afford an economically viable market entry strategy.* As noted, attached to this affidavit is a list that compares Ameritech's proposed rates with rates proposed by MCI and AT&T in the TELRIC proceeding, Case No. 11280,

before the Michigan Public Service Commission ("MPSC"). In this proceeding, MCI and AT&T reconstructed a large number of Ameritech's cost models and used those corrected models to adjust for the deficiencies in Ameritech's models. This comparison indicates that new entrants are not able to viably compete by means of unbundled network elements at Ameritech's proposed and inflated prices.

32. Further, as illustrated in the table below, new entrants will not be able to serve low volume customers by means of unbundled network elements because the margins are too low to recover inflated non-recurring charges. Neither will new entrants be able to use unbundled network elements to compete for high volume customers, such as Centrex customers, for which Ameritech has pricing flexibility. Since Ameritech uses a *different costing standard* for such situations, they will always be able to calculate lower costs than those assigned to the unbundled network elements. Ameritech's inconsistent use of cost methodologies is discussed at some length below.

Table 1: Ameritech's Defensive Strategies

	Low Volume Customers	High Volume Customers
Recurring charges		Ameritech has pricing flexibility. Ameritech's *double* standard for costing ensures that unbundled facilities will be more expensive than Ameritech's customer specific contracts.
Non-recurring charges	NRCs (service ordering and collocation charges) are *too high* to be recovered from low volume customers.	
Prospects for Viable use of Unbundled Network Elements	*Not Viable*	*Not Viable*

33. Because Ameritech's pricing strategy eliminates the profitability of serving large segments of the market by means of unbundled elements, it undercuts the economies of scale required to justify the large up-front investments required for facility-based operations. It also virtually ensures that most Michigan residents will not have a choice of local service providers. Further, whatever choice they may anticipate now -- due to the number of companies that have made significant investments in anticipation of the level playing field promised by Congress -- is likely to wither if these distorted and anticompetitive charges are not redressed.

Non-Recurring Charge for Unbundled Local Switching

34. *Ameritech's proposed $33,669.71 per switch ULS Billing Development charge is artificially inflated, a considerable barrier to entry that prevents general commercial use of ULS*

(usage data tracking for billing purposes), and will afford Ameritech multiple recovery of its costs. This proposed charge applies *per switch* per carrier whenever ULS is ordered. It is clear from Ameritech's cost study, however, that the costs for ULS Usage (billing development) are calculated on a *per carrier* (i.e., carrier purchasing ULS) *per five state serving area* basis, so that the charge should apply only once per carrier in Ameritech's five state serving area.[3] As the cost study for ULS billing development indicates, Ameritech forecasts **[Subject to Ameritech Protective Order]** customers in Ameritech's five state region. This was confirmed by Ameritech witness Dr. Curry during his deposition in Ohio.

35. Ameritech's proposal to assess the $33,669.71 charge per switch, every time a carrier orders an ULS arrangement, will allow it to greatly over-recover its ULS billing development costs.

For example, if five carriers -- AT&T, MCI, Worldcom, Sprint and TCG -- each order one ULS arrangement in one switch in each of Ameritech's states, Ameritech will fully recover the full amount of its ULS billing development costs. Each time, subsequently, any of these carriers orders ULS arrangements out of other central offices, Ameritech will begin to greatly over-recover the costs.

36. If more reasonable demand figures are assumed, then the ULS billing development costs can be spread-out over a larger number of switches, thus bringing the costs per switch down. Based on reasonable estimates that assume that ULS will be ordered - *in the long run* - on approximately 10 to 20 percent of Ameritech's switches in each state, the ULS billing development

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[3]See Ameritech TELRIC studies Usage Billing Development, Unbundled Local Switching Study, MPSC Case No. U-11280, Bates stamped page 000276.

cost can be recovered by a charge of approximately $100 to $150. Of course, if Ameritech assumes that this level of penetration is *not* achievable, then this should be proof in and off itself that Ameritech's ULS offering is structured so as not to be commercially viable.

37. Further, to the extent that the ULS billing development costs are larger than they should be because Ameritech denies new entrants access to its common transport, those costs are artificial in the first place.

38. In his Affidavit in Case U-11280 before the Michigan Public Service Commission ("MPSC"), Ameritech witness J. Thomas O'Brien discusses a large number of possible configurations of calls originating and terminating on a CLEC's ULS.[4] In many of these possible configurations, Ameritech proposes to assess switched access charges that are not cost-based, such as the RIC, both to the CLEC leasing the ULS or to an IXC that delivers or receives traffic from the CLEC's ULS.[5] This is inconsistent with TELRIC and with the statute. Since ULS is an unbundled network element, the methodology for setting rates should be consistent with the pricing provisions of the Act of 1996 and the methodology used for setting rates for other unbundled network elements, such as unbundled loops. Since Ameritech is *not* allowed to assess switched access charges related to loop facilities (such as carrier common line ("CCL")) when the loop is unbundled, they should neither be allowed to assess switched access charges for traffic associated with local switching and transport when these elements are unbundled.

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[4] In Case No. U-11280, the MPSC is investigating Ameritech's costs studies to determine whether they are TELRIC studies and should serve as the basis for setting rates for unbundled network elements and interconnection services.

[5] See O'Brien, Affidavit, Schedule 2, MPSC Case No. 11280. Also, see O'Brien Schedule 1, ULS Tariff, section 3.

Physical Collocation

39. To appreciate that Ameritech is inflating the alleged cost of collocation cages, consider Ameritech's proposed monthly charges of $840.08 for 100 square feet of central office floor space. Real estate in Michigan is simply not priced so that a space the size of an average walk-in closet would rent for $840.08 per month. Further, in addition to the rental charge for floor space there is an additional charge for construction costs. These construction costs are recovered in a separate one time charge of $29,401.25, which is Ameritech's proposed rate for 100 square feet of Central Office build out. If one adds these charges together, Ameritech is proposing to charge new entrants real-estate prices for Michigan (both rural and urban, as rates are uniformly applied across the state) that would make a real estate agent in Manhattan envious.

40. According to the Ameritech provided materials, CO floor costs were determined in a two step process.[6] First, Ameritech determined the per square foot investment costs for CO floor space. Second, the 100 square foot of CO floor space was increased to reflect the square foot space needed to support the collocation space. Specifically, the adjustment was necessary, according to Ameritech, for support equipment and functions. As Ameritech states:

> additional floor space is required to support the 100 square feet of floor space dedicated to the customer's collocation space includes general building access, heating, ventilating and air conditioning equipment space, commercial power rooms, water rooms, etc.

41. The basis for Ameritech's cost estimate is a publicly available real-estate guide, published by R.S. MEANS. The table used by Ameritech for the per square foot investment cost lists

[6] All the quotes and information discussed here are taking from a voluminous response to MCI's 1st Set of Interrogatories to Ameritech, #23 through 37. MPSC Case No. 11280.

$167 per square foot specifically for telephone exchanges.

42. The R.S. MEANS Building Cost Data guide used by Ameritech calculates the average square foot investment costs for a central office that *includes* all the "support equipment and functions" listed by Ameritech. That is, the per square foot investment of $167 already assumes that all those support functions are provided; i.e., the costs for those are already included. For example, the per-square foot costs include: foundation, footings, excavation and back fill, superstructure, columns, beams, elevated floors, stairs, structural walls, partitions, exterior closure, walls, exterior and interior doors, elevators, special conveyors, windows, roofing, partitioned walls, hall ways, plumbing, fire protection, heating, ventilation and air conditioning, electrical equipment, wiring, lightning, power, florescent fixtures, emergency lighting, light switches, special electric equipment, alarm systems, etc. It also includes general construction overhead costs and profit of 15% and architect fees of 11%.[7]

43. In sum, R.S. MEANS gives the costs of a *fully equipped central office structure* (except, of course, for the telecommunications equipment itself, such as the actual switch, and peripherals), including the cost of design and construction.

44. Nonetheless, Ameritech uses this figure to support a rental charge that offers only the privilege of being inside a central office. It then imposes an additional charge of $29,401.25 for central office build-out, even though these costs are already included in the rental charge based on

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[7] A complete list of all cost components accounted for in the R.S. MEANS cost estimate is found in *MEANS SQUARE FOOT COSTS, Residential, Commercial, Industrial, and Institutional* 203 (17th ed.1996). Since R.S. Means "stands behind its publications," the Commission should "feel free to call R.S. Means editors at 1-617-585-7880" to verify the information provide in this affidavit.

the R.S. MEANS figure. It further imposes a separate charge of $4,609.77 for "transmission node enclosure" -- a fence around the space, again ignoring that the R.S.MEANS figure provides for partitioned walls, doors, locks, etc.

45. Ameritech's proposed Central Office Build Out ("COBO") charge of $29,401.25 constitutes double recovery of cost. Ameritech explains the rationale for this charge as follows:[8]

> For each 100 square feet of floor space that a customer requests within a Central Office a Central Office Build Out (COBO) charge will be applied. This charge is designed to cover the general modifications that need to be made to a central office in order to accommodate customers' Transmission Nodes. These modifications include security card readers, AC power circuits, the ability to connect seven foot equipment bays to the Central Office DC Power supply and other space conditioning. The COBO charge is a one time nonrecurring charge.

Ameritech then goes on to note:

> *The development of these costs was based on the same sampling of Central Offices as was used for the basic floor space.* These costs reflect the requirements need to make the customers space safe, secure and usable. Included are the required capital costs and associated operating expenses for installing walls and doors, locks and keys, additional heating and ventilation and air-conditioning, reconditioning of floors, overhead lighting, battery distribution fuse board (BDFB), and the provision of AC power circuits in the customer's space. (Emphasis added.)

46. The COBO charge, however, is inappropriate in the first place. All the modification that Ameritech lists are already *included* in the $167 per square foot investment cost identified by R.S MEANS. That is, the expenses of "walls and doors, locks and keys, additional

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[8] All the quotes and information discussed here are taking from a voluminous response to MCI's 2nd Set of Interrogatories to Ameritech, #28 through 31. MPSC Case No. 11280.

heating and ventilation and air-conditioning, reconditioning of floors, overhead lighting, battery distribution fuse board (BDFB), and the provision of AC power circuits in the customer's space" listed by Ameritech are *already* identified by R.S.MEANS and included in its cost estimates.

47. R.S. MEANS determines the per square foot investments for a fully equipped central office. That is, R.S MEANS already includes the costs for "the ability to connect seven foot equipment bays to the Central Office DC Power, security systems, electrical wiring, etc. (See the list provided above.) It is precisely for all those types of pieces of equipment and functions that collocators would be charged the $16,700 for 100 sq ft of central office space (if the high cost figure were appropriate).

48. Further, there are no costs imposed by collocators that would not be imposed if the space were being used by Ameritech. Collocators are not doing anything that Ameritech itself is not also doing in its central office. That is, from a technology point of view, Ameritech's equipment and the collocator's equipment are indistinguishable. *Therefore, a square foot of central office space used by Ameritech is no different than a square foot of central office space used by a collocator.* Since the R.S MEANS figure of $167 identifies the totality of all costs for a square foot of central office space, there is simply no need to search for any additional costs where it concerns the square feet occupied by collocators. The only possible exceptions, the fence and any other pieces of equipment or services that Ameritech might provide, such as power, riser space, splices, entrance facilities, etc., are already charged separately.

49. Put differently, R.S. MEANS has already identified the "TELRIC" for one square

foot of central office space.[9] Therefore, there should be no additional charges for heating, air conditioning, electrical wiring, security systems, or any of the other support equipment and functions that Ameritech lists. All of those are already included in the TELRIC calculated by R.S. MEANS. The only additional charges Ameritech should be allowed to apply are those for fencing-in the collocation space (transmission node enclosure), and other pieces of equipment or services, such as power, riser space, splices, entrance facilities, etc.

50. Ameritech reaches this scheme for double recovery by applying both TELRIC and a short run incremental cost approach for the same underlying element. On the one hand, Ameritech computes the costs as if the central office were newly constructed *even though* Ameritech *already* has an abundance of central office space for which it is compensated in its retail rates. Methodologically, this is correct and consistent with TELRIC.[10] Then, however, it adds a figure for build out costs, suddenly ignoring that the recurring floor space charge already includes costs for building the space from scratch. The build out cost figure is based on the *short run* incremental costs for converting *existing* floor space into rentable floor space.

51. By analogy, assume that a student signs a lease to pay $1000 per month for a newly constructed apartment of 1000 square feet. In a sense, we could say that the monthly rent payment

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[9] Because R.S. MEANS calculates the costs per square foot "from the ground-up" by including all elements that make-up a central office, and updates this information every year, it in effect calculates something like a TELRIC figure. R.S. MEANS' method certainly more closely resembles TELRIC than Ameritech's method of triple loading.

[10] Note, a short run incremental cost analysis would provide floor space for free to competitors because Ameritech does not incur any incremental costs. This would be a cheaper arrangement for CLECs, but it would not be consistent with TELRIC study. This is the price of methodological consistency.

represents the TELRIC since the apartment is newly constructed and presumably the landlord is charging a rent that is compensatory in a competitive market. Now, assume when the student moves into her apartment that the landlord were to assess an "apartment build out" charge for putting in light fixtures, electrical wiring, doors, locks, ducts for AC and heat, etc. Clearly, in this situation the landlord is double recovering his costs, as the $1000 per month rent should already pay for all those items. Ameritech's proposed recurring charges for floor space and CO build out represent a situation, such as the one of the greedy landlord, in which costs will be double recovered.

52. In addition, given that Ameritech identifies a $**[Subject to Ameritech Protective Order]** investment in its cost study for "adjusted" floor space, it is obvious that Ameritech simply doubled the floor space. That is, Ameritech assumes that to serve a 100 sq ft collocation space, it has costs for **[Subject to Ameritech Protective Order]** sq ft of space, for the above noted reasons. The arithmetic corroborates this: **[Subject to Ameritech Protective Order]** x $167 = $**[Subject to Ameritech Protective Order]**.[11] In sum, Ameritech's gross-up ("adjustment") factor is **[Subject to Ameritech Protective Order]**, which serves to greatly increasing the cost by adding an additional recovery for costs already included in the per square foot cost for the actual 100 square feet used by each CLEC. It is unscrupulous of Ameritech to **[Subject to Ameritech Protective Order]** the costs for CO floor space investment, as if somehow it were not already recovering the costs for support equipment and functions in the $167 per square foot.

53. Ameritech's gross-up factor is further exaggerated because it is derived by

[11] Ameritech Michigan, Physical Collocation Study, CO Floor Space, page 152. MPSC Case No. 11280.

extrapolating from Ameritech's existing central office ("CO") situation even where that is inapplicable. In this extrapolation, Ameritech fails to recognize that the collocators will not be allowed access to most of Ameritech's CO. For example, the gross-up factor used by Ameritech is based on the ratio of the CO's space used for telecom equipment and the space for other things, such as storage space, kitchens, bathrooms, etc. Since collocators will not be allowed to use the kitchen or Ameritech's storage facilities and a variety of other included spaces, it is inappropriate to gross-up the rental fee for collocation space as if they did have access to those spaces. Ameritech is charging for facilities that the new entrants will never get to use. Although the per square foot cost as calculated by R.S. MEANS includes the costs for kitchens, it is unlikely that the new entrants will be invited by Ameritech for a cup of coffee.

54. Next, Ameritech does not account for the fact that multiple collocators will be housed in Ameritech's COs. This means that any hallway space for access will be common space used by a number of collocators (and possibly by Ameritech.) Most importantly, this means, again, that a linear extrapolation of Ameritech's existing situation does not reflect a least cost forward-looking situation in which multiple collocators share space. By analogy, the Commission should consider that a two car garage needs less spare space than a one car garage. This is so, because a one car garage needs space on both sides of the vehicle to open the doors, while in a two car garage, the space in between the cars is shared by both cars, as is the entry way, etc. In short, Ameritech ignores that the hallway space is common space that is shared. As a result Ameritech's gross-up factor inappropriately inflates the rental charge for collocation space.

55. Even if it were legitimate to charge a construction cost, such a charge should never

be a one time charge. If the collocator discontinues the collocation service, the space is now available for the next collocator. The next collocator, however, would be charged again as if 100 % of the CO build out activities have to be replicated in full. This, of course, is not true. When a current collocator discontinues the collocation service, Ameritech would not remove the light fixtures, AC and heating ducts, security systems, etc.

56. *Ameritech's claim that it operates high cost central offices is unjustified.* The R.S.MEANS guide used by Ameritech reports square foot costs for central offices for three cost ranges, low, medium and high. Ameritech selects the high cost figure. Michigan, however, is a medium cost area. There is no basis for Ameritech's central offices being more expensive than those of its sibling RBOCs. In fact, it is obvious that a central office in New York would be more expensive than a central office in Michigan.

57. Ameritech's inappropriate use of the high cost area figure inflates the per square foot of a collocation cage by 20 percent.

58. *Ameritech's collocation studies inappropriately calculate one-time investments related to certain pieces of equipment, thus raising the associated non-recurring charges.* Ameritech identifies an investment of $**[Subject to Ameritech Protective Order]** and then calculates a Net Present Value that is larger at a value of $**[Subject to Ameritech Protective Order]**.[12] Mathematically, this is not possible. The net-present value of $1.00 today is $1.00. Obviously, Ameritech does some mysterious calculations for the transmission node enclosure which result in a

[12]See, Transmission Node Enclosure, Physical Collocation Study, Bates stamped page 000413. MPSC Case No. 11280.

net-present value that is larger than the required investment.

59. *Ameritech's space reservation and service ordering charges for collocation facilities are artificially inflated.* Ameritech's proposed charges for space reservation and ordering charges are $696.44 and $281.44, respectively, which totals almost $1000 for placing a collocation order. Given that Ameritech's charges for all pieces of equipment are based on engineered, furnished and installed ("EF&I") investments, which includes labor costs for architectural design and engineering, it is unclear what service ordering activities could possibly include other than taking the order by letter or telephone and informing the appropriate people.

60. *Ameritech's cancellation charges for collocation arrangements are also inflated.* Ameritech is proposing to charge a cancellation fee of $4,324.92. Examination of the cost study supporting this charge reveals excessive amounts of labor time for canceling a service order. Specifically, Ameritech estimates that it will take **[Subject to Ameritech Protective Order]** hours to cancel an order.[13] That is, one full-time employee has to work Monday through Friday and, after one week's hard work, come in on Saturday to cancel the would-be collocator's service order for 100 square feet of already existing central office space. It appears that this fee is imposed as an entry barrier rather than cost based.

61. Then, as if all of this is not intriguing enough, an "Asbestos Assessment" of $**[Subject to Ameritech Protective Order]** appears in the cost study.[14] During depositions, Ameritech witnesses could not explain why this charge applies only when an order is *canceled.* Do

[13]See, Cancellation Fee, Physical Collocation Study. MPSC Case No. 11280.
[14] See, Cancellation Fee, Physical Collocation Study. MPSC Case No. 11280

collocators bring asbestos into the central office when they place a service order? Does Ameritech place asbestos in the spaces to be used by its competitors, which then has to be removed when they leave?

Non-Recurring Charges for Service Ordering (Unbundled loops)

62. Ameritech's proposed service ordering charges for unbundled loops is $49.76. The service ordering charges pertain only to the activities of taking service orders. For example, for unbundled loops, the service ordering charges consist only of 10 minutes of labor time for an operator taking orders and keying-in the data, much like what a service-order taker at McDonald's does. Ameritech imposes separate line-connection charges of $42.41 to recover the costs of any activities necessary to carry -out the service order.

63. In general, Ameritech's charges do not reflect forward-looking, least-cost technologies. Specifically, Ameritech's cost studies for service ordering charges are flawed for the following reasons:

a) The studies inappropriately *average* service ordering charges for unbundled loops with service ordering for a variety of other services. The service ordering charges, therefore, are not specific to unbundled loops.

b) Most of the costs are generated by manual processes for taking service orders on a line-by-line basis and fail to reflect that service ordering in a wholesale environment can be accomplished by means of automated processes. Indeed, there is ample evidence that the costs of taking service orders can be brought down significantly if the process is automated.

c) Ameritech does not base its study on an EDI-type interface that Ameritech and resellers will use for ordering POTS (plain old telephone service) for resale. This interface should be used here also.

64. *Ameritech's service ordering charges are inappropriately averaged across*

various services, thus raising the service ordering charges for unbundled loops. Examination of Ameritech's non-recurring service ordering and line connection cost study reveals that Ameritech calculates an *average* service ordering TELRIC for a number of services: loop; port; SPNP Direct; SPNP Remote; and Additional Path.[15] However, the service ordering for some of the other services is substantially higher than the service ordering charges for unbundled loops but the service ordering charges for unbundled loops are averaged with service ordering charges for other services that are nearly *seven and a half times* as high. For example, the Michigan service ordering TELRIC for unbundled loops is $**[Subject to Ameritech Protective Order]**, while the Michigan service ordering TELRIC for SPNP service is $**[Subject to Ameritech Protective Order]**.[16] Not surprisingly, Ameritech's proposed service ordering charges for unbundled loops are greatly in excess of the costs calculated by Ameritech.

65. Obviously, this type of cost averaging violates every TELRIC and proper economic costing principle: if new entrants order unbundled loops but not SPNP or some other service, then they should not incur charges for cost they do not cause. And there is no administrative reason to average costs when they have already been calculated on a service-by-service basis.

66. Further, Ameritech inappropriately charges for disconnecting in its service charge, even though it does not incur any costs for disconnecting *at the moment* that the service order is placed. Of course, when service is disconnected, at some point in the future, it would be appropriate to charge for any legitimate costs.

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[15] Michigan Weighted Unbundled Services Service Order Cost, Bate stamped page 000155. MPSC Case No. 11280.

[16] Id.

67. *Ameritech's non-recurring charges for Service Ordering do not reflect a wholesale environment.* Service ordering costs should be determined consistent with the FCC's TELRIC methodology and there based on least-cost, forward-looking technologies. Thus, the charges proposed by Ameritech, which assume extensive manual processes and service ordering taking on an order-by-order basis, are inconsistent with the FCC's TELRIC methodology and do not meet the requirements of the checklist.

68. It is my understanding that Ameritech has implemented an EDI-type ("Electronic Data Interchange") interface for resale ordering that eliminates all manual intervention at the Ameritech Service Center for CLEC orders for POTS resale. It also is my understanding that the industry has now developed an EDI-type interface for the ordering of unbundled loops that would similarly eliminate all manual intervention.

69. A true forward-looking technology for loop order processing would rely upon the EDI-type interface, rather than on the more manual type loop ordering process used in the Ameritech models. Thus, a true TELRIC for loop service ordering would not have any costs associated with Ameritech personnel time for entry, since all the manual entry activities would be performed at the front end by CLEC personnel.

70. The difference between Ameritech's proposed rates and the rates appropriate under TELRIC for automated processes in a wholesale environment is dramatic. The **[Subject to Ameritech Protective Order]** minutes of labor time reported by Ameritech for taking the order and keying-in the data is eliminated if an electronic interface between new entrants and Ameritech is